## BRIEFER ARTICLES.

## A PRACTICAL REFORM IN THE NOMENCLATURE OF CULTIVATED PLANTS.

Some years ago the Society of American Florists adopted Nicholson's Dictionary of Gardening as its authority for the names of cultivated plants until Index Kewensis should be completed. Index Kewensis has been finished for several years, but no florist, nurseryman, or seedsman has standardized the names in his catalogue until in the case about to be described. Moreover, no tradesman, so far as I know, has ever tried to be absolutely consistent in his names or to follow any one botanical authority. Nevertheless, the seedsmen, nurserymen, and florists are bringing up the perplexing problems of nomenclature, making resolutions, formulating rules, appointing committees, and adopting standards. An intelligent minority is always pressing for reform. Standards are adopted and no one follows them. Will they ever be followed? Some say no, and affirm that there are essential elements in trade that will always make horticulture and botany conflict more or less. I have long thought otherwise, and now have to record an experiment that seems to show an entirely practical way of standardizing the nomenclature of trade catalogues.

It seemed to me very important that some particular catalogue should be compared with Index Kewensis, and every name altered to conform with it. Every name not found in Index Kewensis should then be compared with Nicholson's Dictionary of Gardening and harmonized with that, if possible. This process has actually been followed in the catalogue of F. H. Horsford, of Charlotte, Vt. The case has proved to be an interesting one, and its main features should be pul on record, for some of our best horticultural firms, I believe, are willing to standardize their catalogues, if only they are shown just how to do it. We should bear in mind that the principles of nomenclature, so familiar to every botanist, are entirely unfamiliar to the busy horticulturist with a living to make.

At the outset one might readily imagine that any nurseryman, seedsman, or florist who has access to Index Kewensis and Nicholson can do this kind of work himself for his own catalogue. This idea will have to be modified. Some tradesmen can do it themselves, but most cannot. However, all the important ones can hire it done, and cheaply. It is a job that would be exceedingly dry and uncongenial to many excellent business men. Competent students, however, can be found at the universities who are making their way, and would be glad of such work. A thousand names can be standardized for five dollars, at the rate of twenty cents an hour for twenty-five hours. This does not include the task of rearranging names in alphabetical order, or the reading of proof (as some cataloguers may prefer to do this themselves), but only the work of supplying the information necessary to the cataloguer.

There are about seven hundred species in the Horsford catalogue, and only twenty-five of those names are not to be found in *Index Kewensis* or Nicholson. This is less than 4 per cent., which is surprisingly low when one reflects on the great number of novelties since 1893; but Mr. Horsford sells largely of native plants, and these have received comparatively few trade names. Moreover, a goodly proportion of these twenty-five missing names are those of hardy native ferns. *Index Kewensis* has no ferns.

One barely begins to compare the names of a catalogue with *Index*\*\*Rewensis\* when he is confronted with an important problem of which this is a picture:

Alyssum saxatile Crantz = A. gemonense.
Alyssum saxatile Linnæus.

Now, how does the "standardizing clerk" know whether his employer has in his nursery the Alyssum saxatile of Crantz or of Linnaus? Probably he could give a shrewd guess. Possibly he may have both of the original descriptions at hand, and the plants also, but the chances are all against it. But, putting such considerations aside, this is a matter of identification, not of nomenclature, and the distinction between these two kinds of work must be grasped at the outset, or nothing can be done. The duty of the nomenclature clerk is clear. He assumes that the plant in the nursery is the one that Index Kewensis prints in ordinary type. The names in ordinary type, he knows, are considered by Index Kewensis to be the tenable ones, while all those in italics are synonyms. It is to Mr. Horsford's business interest to do all he can to find out whether the Alyssum saxatile in his nursery is properly named or is really Alyssum gemonense. Most tradesmen,

however, do not have the time, the training, or the books to determine all their plants. Identification is the work of the botanist, and the day will come, I hope, when all the plants in the nurseries may be identified by specialists. Such work, however, is many times more costly than merely following a uniform system of nomenclature. The distinction between identification and nomenclature cannot be urged too strongly.

Another case is also interesting and occurs frequently:

Aconitum autumnale Lindley = A. Fischeri.

Aconitum autumnale Reichenbach = A. Napellus.

In this case Index Kervensis does not give any Aconitum autumnale in ordinary type, and therefore it recognizes no good species of that name. Here, again, the duty of the nomenclature clerk is clear, and he writes:

Aconitum autumnale (Lindl. or Reich.?).

It is not for him to decide whether the plant in the nursery is really A. Fischeri or A. Napellus. He has called the attention of the nursery man to the question, and leaves it open. The nurseryman, perhaps, cannot settle the question while his catalogue is going to press, and he follows the suggestion of the nomenclature clerk literally. Perhaps he may not be able to settle the point for several years, but trade reasons are constantly urging him to get the point settled. Meanwhile it is consistent and honest to indicate a doubt. Two entirely different things have been cultivated under the name of Aconitum autumnale, but no one will suspect it if the fact were concealed. Honest doubt inspires confidence.

The next point will have great weight with the horticulturists. Mr. Horsford catalogues Anemone montana and Anemone sylvestris as two different things, but Index Kewensis says that the first is a synonym of the second. The nomenclature clerk allows Mr. Horsford to sell his two distinct things under the same names as before, but one of the

entries now reads:

Anemone montana (A. sylvestris according to Index Kewensis, but horiculturally distinct with me).

This is perfectly clear, but too long, and a shorter way will be shown The important things to note are two. First, the nursery man is as free as before to differ in opinion from the official authority but a larger of ity, but now he is consistent throughout, and supplies the opinion of

the recognized authority as well as his own. Secondly, every name that appeared in the old catalogue appears in the new, but many of the old names now appear as synonyms or cross-references. No trade name that means money need be omitted. A shorter method of expressing a difference of opinion from official standards is to put an explanatory note at the beginning of the catalogue to this general effect: "Names in brackets show a difference of opinion." Thus we catalogue:

Anemone montana [A. sylvestris].

This means that Index Kewensis considers A. sylvestris to be the proper name of the species and A. montana the same thing, or perhaps only a botanical variety, while we consider that the two things are distinct for horticultural purposes. Instead of suppressing the opinions of others that conflict with our own, we tolerate them both, and place them side by side.

The commonest situation that needs change is shown by the following example: Mr. Horsford advertises for sale Achillea Eupatorium. Index Rewensis says this equals A. filipendulina. The best way for him to do is to advertise

Achillea filipendulina. (A. Eupatorium.)

This makes a great many changes in the alphabetical arrangement

of species, and sometimes of genera.

The other way to do is to advertise under the old name, with the name in parenthesis, and perhaps in different type, and an explanation in some prominent place of the device used consistently throughout the catalogue. This is a far less satisfactory method. The only thing that can be said for it is that it supplies the information. Doubtless it would be cheaper in some cases than revolutionizing a whole catalogue, but if a thing is worth doing at all it is worth doing

A few minor points may be briefly mentioned. The name of the withor of a species would better not be given in trade catalogues unless and lecessary. It makes a catalogue look too dry and technical and unattractive. There is no officially accepted authority for popuhad a names or for names of varieties, whether botanical or horticultural. Index Rewensis is not supposed to take account of anything below the Species. Nicholson gives some varieties and also popular names.

It sometimes happens that Index Kewensis gives a species twice in

ordinary type as if both were tenable. For instance, there is a Campanula strigosa of Vahl and a Campanula strigosa of Solander, both in ordinary type. In such a case the nomenclature clerk may write:

Campanula strigosa (Solander or Vahl?).

It is well to explain in the beginning of a catalogue which names are the proper ones and which are the synonyms. The latter are commonly in italics. It makes little difference how a catalogue is arranged, provided that there is a full index somewhere. Few indexes are full enough. The Horsford catalogue has no index, and there are seven departments, the arrangement being alphabetical under each department. The fact that there are seven departments should therefore be prominently stated, and the seven departments listed in the space of an inch or two in such a way that the mind can take in the whole scheme.

—WILHELM MILLER, Cornell University.

## THE BOTANICAL GARDEN AND INSTITUTE IN PADUA

THE readers of the BOTANICAL GAZETTE may be interested to hear something of the ancient Botanical Garden of the University of Padua, instituted by the Venetian Senate in a decree of the twenty-ninth of June, 1545, through the wise forethought of Francis Bonafede in 1543.

The director, Professor P. A. Saccardo, who has recently improved the Institute and the Garden, published some interesting notices upon the 350th anniversary of its foundation from which I take the greatest part of this note.

Professor Saccardo's activity turned, in the first place, to increase the library, initiated in 1770 by one of his predecessors, John Marsili, and enriched afterwards by Professor Bonato and Professor De Visiani, so that it contains already more than 10,000 volumes. Among the books, besides about forty periodical reviews and many valuable works, I must mention the oldest botanical book with instructive figures, viz., Herbarium Apuleji Platonici, printed in Rome in 1479.

The director has filled up during recent years the series of works on the floras, especially on the foreign ones, to make easier the labor

SACCARDO, P. A.: L'Orto botanico di Padova nei 1895 (anno CCCL dalla sua fondazione). Padua. 1895. Quarto, with one topographical and eight heliotype plates.